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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/914,635

02/25/2002

Heinrich Schenk

12816-040001

9562

7590

07/05/2005

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EXAMINER

DEPPE, BETSY LEE

ART UNIT

PAPER NUMBER

2637

DATE MAILED: 07/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/914,635

Applicant(s)

SCHENK ET AL

Examiner

Betsy L. Deppe

Art Unit

2637

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on February 20, 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Drawings***

1. The drawings were received on February 20, 2005. These drawings are accepted.

### ***Claim Objections***

2. The claims are objected to because of the following informalities:
  - a. in claim 1, line 8, the Examiner suggests deleting "assigned thereto" for clarification;
  - b. in claim 1, lines 7-9 are inconsistent with the detailed description.  
According to the figures, the digitized sample of the cyclic prefix is subtracted from the digitized sample of the symbol, not vice versa as recited.
  - c. in claim 1, line 9, "for" should be "thereby" for clarification; and
  - d. in claims 4 and 6-8, the Examiner suggests the following changes in the respective claims for improved readability:
    - i. on lines 3-4, change "can be fed" to "are provided";
    - ii. on line 7, insert "and" at the end of the line;
    - iii. on lines 9-10, "a symbol" should be "the symbol";
    - iv. on line 11, change "it being possible for" to "wherein";
    - v. on lines 11-12, change "to be fed in each case" to "is provided";

- vi. on line 13, change "it being possible for" to "wherein" and "to be" to "is."

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1- 8 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

6. With regard to claims 1-8, the detailed description does not describe the subtraction of **more than one** digitized sample of the symbol from a digitized sample of the cyclic prefix (see claim 1, lines 7-9 or more than one subtractor circuit (see claim 4, line 5-7). Figure 1 and the corresponding description on page 10, lines 10-16 shows/describes subtracting a single sample of the symbol from a single sample of the cyclic prefix. If additional subtractors are used, as suggested in the claims language, it is unclear how to make and/or use the invention with two or more subtractors. For

example, are different symbol samples and/or cyclic prefix samples used?

Furthermore, how is the parameter determined for the multiplier circuit if it receives inputs from multiple subtractors.

7. With regard to claims 2, 5, 6 and 8, the detailed description does not describe compensating for interference in both the time domain and the frequency domain as recited in claim 2. According to page 8, lines 13-14, it appears that compensation occurs either in the time domain or in the frequency domain. Therefore, it is unclear how to make and/or use the invention that compensates for interference in both domains simultaneously. As dependent claims, claims 5, 6 and 8 are rejected for the same reason.

8. Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9. In claim 1, line 8 and line 6 of claims 4 and 6-8, respectively, it is unclear what is meant by subtracting "at least one digitized sample of a symbol from a digitized sample assigned thereby of the cyclic prefix." Is each digitized sample of the symbol subtracted from each digitized sample of the cyclic prefix? Or each digitized sample of the symbol subtracted from a corresponding digitized sample of the cyclic prefix?

10. Each of claims 3 and 5 recites the limitation "the error-corrected digitized samples" in line 2. There is insufficient antecedent basis for this limitation in the respective claims.

Art Unit: 2637

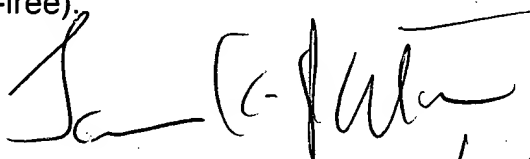
11. Each of claims 4 and 6-8 recites the limitation "the error" in line 7. There is insufficient antecedent basis for this limitation in the respective claims.

### ***Conclusion***

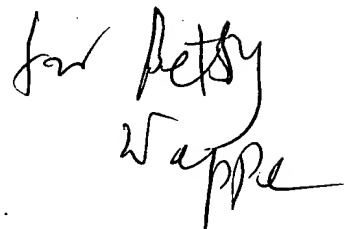
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Betsy L. Deppe whose telephone number is (571) 272-3054. The examiner can normally be reached on Monday, Wednesday and Thursday (8:30-4:00).

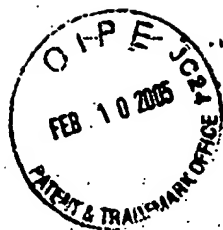
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571) 272 - 2988. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Betsy L. Deppe  
Primary Examiner  
Art Unit 2637





05-06-2001  
WO 00/52892

Approved. ~~Approved~~  
BD 6/6/05

[illegible]  
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Appl. No.: 09/914,635  
Amendment in Reply to Office action of November 30, 2004  
Replacement Sheet

FIG 2

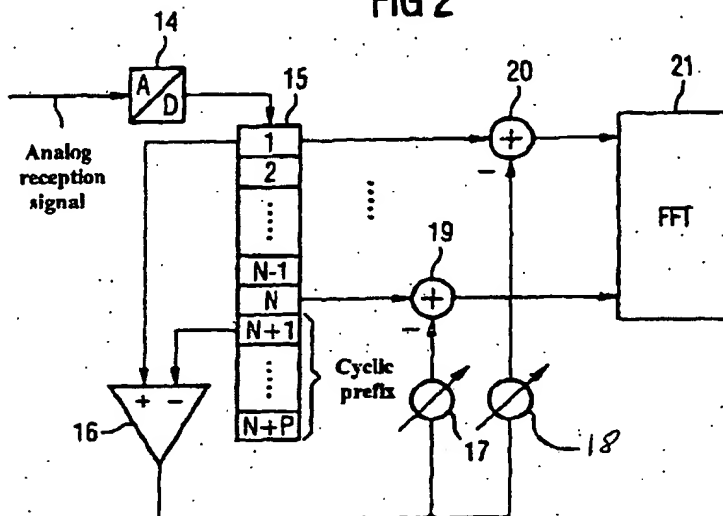
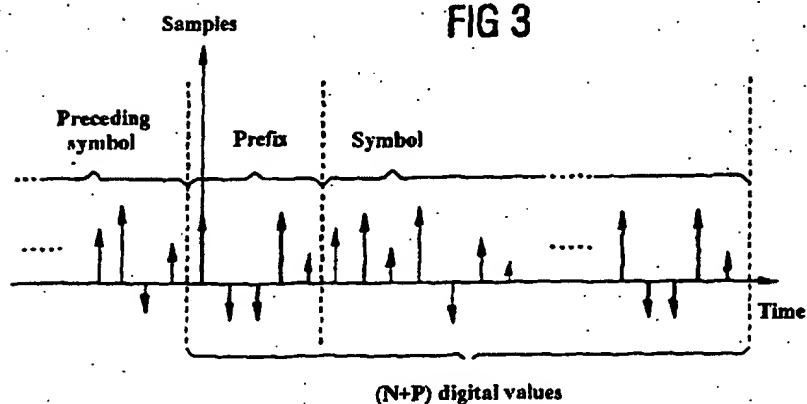


FIG 3



AMENDED SHEET